Minutes of Community Workgroup Meeting #3
Plum Brook Reactor Decommissioning
Bettcher Room, Firelands College
February 15, 2000

AGENDA

1. Introduction & Welcome (Tim Polich - 5 minutes) (To include introduction of any new members present)
2. Review & Approval of Meeting Minutes (all - 5 minutes)
3. Review of Agenda (5 minutes)
4. Update on Submittal of Plan to the NRC (Bill Wessel - 10 minutes)
5. Presentation on Reactor Facility Decontamination and Demolition Procedure (30 minutes)
6. Q &A/Discussion (25 minutes)
7. Other Issues and Future Meeting Topics (Susan Santos, Tim and Bill -15 minutes)
8. Confirm Date for Next Meeting (5 minutes)
9. Overview of Displays and Invitation for Walk Through (5 minutes)
10. Walk Through of Displays for Public (15 minutes)

The meeting began at 7 PM. Present were the following Community Workgroup members: John Blakeman, Jan Bohne, Mark Bohne, Steve Casali, Fred Deering, Ethel Roldan, Robert Speers, Gene Wright and new member Ralph Roshong. Also present were: Tim Polich, Bill Wessel, Sally Harrington, Mike Blotzer and Manny Dominguez from NASA; Mark Kessinger and David Bingert from the Army Corps of Engineers; Bob Hysong of Argonne National Laboratories and Susan Santos and Michael Morgan of FOCUS GROUP. Thirteen members of the general public were also in attendance.

Tim Polich began the meeting by introducing the NASA decommissioning team members present and noted changes in the Community Workgroup membership. He said Carol Andres has left the group due to her increased work schedule. Ralph Roshong, Superintendent of the Kelleys Island Board of Education and a Plum Brook Station near-neighbor, has joined the group.

Tim then turned the meeting over to Susan Santos (the meeting's facilitator), who asked the group for approval of the December Workgroup minutes. The minutes were subsequently approved. Next, she reviewed the agenda for the meeting and asked whether there were any changes. The meeting agenda was approved as presented. Susan noted that at the end of this meeting, the group would discuss future meeting dates. Finally, she noted that at the meeting's conclusion, members of the Workgroup and public were

welcome to peruse the displays on decommissioning that were shown to visitors at October's Plum Brook Open House and November's Community Information Session.

The next item on the agenda was the status of the Decommissioning Plan. Bill Wessel said NASA had submitted its Decommissioning Plan, for the closed reactor facility at Plum Brook Station, "ahead of schedule," on December 20, 1999. He said the plan was well received by the NRC and emphasized that NASA had met with the NRC ahead of time to ensure the plan met with NRC criteria. John Blakeman asked if the plan was available on the Internet. Tim said it was not yet on the Internet, but was available in hard copy - and on CD ROM - at the Decommissioning Community Information Bank in the Firelands College Library. Tim also mentioned that he had brought copies of the CD ROM version for anyone on the Workgroup who wanted a copy.

The next item on the agenda was a presentation on decommissioning techniques, in response to questions that were asked at the last Workgroup meeting. Tim briefly described the two videos that he wanted to show. The first video showed the decommissioning (begun in1996) of the CP5 Research Reactor owned by Argonne National Laboratories. It began with a discussion of "characterization," which Tim described as the "what, where and how of radiation," within a facility that is to be decommissioned. Next, the video showed various techniques for removal of radioactive material, including the use of robotics, diamond wire saws and "blast decontamination" which involves firing steel shot at the walls of the facility, then using heavy duty vacuum cleaners to remove as much as an inch of concrete at a time. The video then showed how work is done in enclosed areas – what is referred to as "protective containment," which controls dust resulting from the cutting procedure.

The second video addressed the decommissioning of the Fort St. Vraine reactor, a large facility in Colorado. It explained in detail how diamond wire saws are used on this project; cutting pie-shaped wedges of concrete (weighing 110 tons each) that are subsequently re-cut into thirds, segments small enough to be transported. The video then showed the safe transportation of the concrete material, which, in the Fort St. Vraine decommissioning, is shipped to a licensed disposal facility in Hanford, WA. John Blakeman asked if the information in the videos paralleled the Plum Brook Station decommissioning. Tim said NASA has not decided on which specific techniques will be used, adding that at present, NASA is "benefiting from the experience and lessons learned" at other decommissioning sites throughout the country. NASA, he said, intends to use "proven technologies…best suited and appropriate" for the protection of workers, the public and the environment for the decommissioning of the Plum Brook Station reactor facility.

After the videos, the meeting was opened for questions. Fred Deering asked how many decommissioning projects have been undertaken nationally. Tim said there have been 70, including small research reactors, which have a capacity of 1-5 megawatts (Plum Brook Station's reactor has a capacity of 60 megawatts). He contrasted that with the Davis Besse commercial nuclear power plant, which has a capacity that is 50 times larger than Plum Brook Station's. Tim pointed out that, unlike Davis-Besse, Plum Brook Station never

generated electricity while Bill stressed that Plum Brook has been free of nuclear fuel since 1973.

John Blakeman asked about liquid waste, which was mentioned in the video. Tim said that, currently, there was no liquid waste on-site. There could be a small amount generated stemming from dust suppression techniques that may be employed during the decommissioning. Liquid waste, he added, would be properly disposed of, most likely using membrane material. He stressed that "we will not have high volumes." John also expressed what he perceived might be a public concern: the project's effect on groundwater and referred to the possibility of "poking a hole in a (waste retention) tank." Tim said the retention tanks that had formerly held water and spent fuel had been removed in 1973. He also said that a lot of water was used when the 100 kilowatt mock-up reactor was operative, but emphasized that the site has been "dry since 1973." At this point, Susan Santos explained that one purpose of the Workgroup was to ask tough questions and to reach the community "through existing groups and channels."

Jan Bohne asked what kinds of problems have occurred during decommissioning projects, observing that she has not been able to find any data on contamination incidents during the decommissioning process. Tim said he was unaware of anything other than some "technical" problems on the site of a project underway at Georgia Tech University, a facility he had visited earlier in February.

He also said Georgia Tech now has technology in place that enables people to actually watch the project’s progress on the Internet, in real time. Tim also noted some dust problems on a reactor site being decommissioned by IT Corp. and said the problem had been resolved through the use of a better dust suppression technique. Bill added that Plum Brook Station is a dry, secure facility, from which the nuclear fuel has been removed and explained that "there are more likely to be anomalies in facilities that still have (nuclear) fuel" on-site.

Ethel Roldan inquired about the destination for waste from Plum Brook Station. Tim said that most of the waste - which is all low-level in nature - would be transported to the Envirocare facility in Utah, with some to be sent to Barnwell, South Carolina. When asked if Barnwell were currently operating, Tim said it was, although there have been discussions about its possible closure. He explained that NASA has already begun looking at alternatives (to Barnwell) and has called the Envirocare facility in Utah - which is in discussion with the State of Utah about the possibility of taking on different classifications of waste. Tim also noted that Envirocare currently has 20 years worth of storage capacity. NASA sees no problem with having a facility to accept the waste.

John Blakeman asked if characterization of the Plum Brook reactor facility has been undertaken. Tim said it had been, back in 1987 and 1988, with additional characterization taking place in 1998. Further sampling was done last fall, with NASA currently waiting for the results. He also talked about some new techniques that may possibly be employed in the future. These include the use of a "Gamma Camera" which, he said, could

demonstrate the presence of radiation, shown through different colors, thus offering further protection to decommissioning workers.

Mark Bohne commented that, "Americans need to understand that our nuclear operations were very safe," and expressed confidence that the decommissioning of these facilities would be "in good hands." John asked how radioactive waste would be transported from Ohio to Utah and how it would be transported - by truck and/or train. Tim responded that much of the movement would be in large metal "Sea Land" type boxes that can be mounted on trucks and railcars. Susan noted that there are specific packaging requirements for low-level radioactive waste, which NASA would use. Tim added that transportation would be done in accordance with Nuclear Regulatory Commission and US Department of Transportation (DOT) regulations.

Manny Dominguez pointed out that DOT rules state that shipping routes must be set forth ahead of time, with a map detailing all points from the place of origination to the final destination. He added that the "comprehensive plan" must include data on: what is being shipped; the volume and "the preferred and safest route," as well as "paperwork (a manifest) that goes with each shipment." Bill Wessel pledged that "when we know how we're moving (waste), open communication on a safe route will be provided to the community." Susan mentioned that NASA would look at a variety of communication options, such as having Plum Brook Station send letters to nearby neighbors before shipments are undertaken.

Ralph Roshong asked if trucks represented a more effective means of transportation. Tim said that, because there is not a nearby rail spur, at least some trucking would be done, possibly in concert with rail transportation. He noted that trucks had been used last summer, when the nose cone of the European Arianne 5 rocket was tested at Plum Brook. Bill wanted the group to know that no final decision on transportation had been made. Susan added that the same kind of protective containers would be used, no matter how it's transported.

Ethel Roldan asked if prior notification would be provided once the mode and schedule were established. Susan assured her this would be the case. She also said that Workgroup members would play an important role in terms of suggesting ways to communicate the information, noting a possible combination of letters to the public, advertisements and Public Service Announcements, depending on the schedule and frequency of shipments. Tim cited the example of a decommissioning undertaken by GPU Nuclear, which developed an extensive communications plan that culminated in a shipment of the reactor vessel through 18 miles of road near the town of Saxton, PA in November of 1998. On this project, townspeople were not only informed about its progress, but also encouraged to come out and observe the movement of the vessel. They lined the route in greater numbers than had turned out for a Halloween celebration just days before.

Gene Wright and Ethel Roldan also expressed concerns about whether any waste would be left behind and were assured that nothing will stay. Ethel noted that many of her fellow community members ate homegrown vegetables, and would wonder whether or

not they would be safe. Tim then mentioned NASA's analysis of what is referred to as the "resident farmer scenario", noting that at the end of decommissioning, "if you had a house on the (27 acre reactor site) and grew your vegetables… there would be no more than background radiation there." [Background refers to naturally occurring levels of radiation that pose no threat to the public or the environment]. He stressed that throughout the project, there will be constant monitoring of the air, water, vegetation and even small mammals. Susan mentioned that monitoring has been conducted on an ongoing basis and that there has never been a release of radiation beyond background levels.

Ethel reported that a woman she did not know had recently visited several homes in her neighborhood, urging residents to sign a petition on "environmental contamination." She said the woman had mentioned the name of a company she could not remember and asked if there were a connection to the decommissioning at Plum Brook Station. She was assured there was no connection. No other member of the Workgroup, the NASA team or other attendees had heard anything similar.

The meeting was then opened to comments and questions from the public. Two members of the public, one of whom formerly worked at Plum Brook Station, recalled that some people used to (incorrectly) blame the NASA reactor facility for weather patterns in the area, adding, "People will believe what they want to believe." Robert Speers then asked what NASA would do if a tornado occurred during decommissioning and Tim said there were contingencies in the plan, suggesting that crane operations could be suspended during periods of high wind and that NASA could structure the workload appropriately. Tim also said the reactor facility will be dismantled in a "two stage evolution." In the first stage, "we'll decontaminate the facility so its clean," and said that while NASA could terminate its license at that point, the agency will instead bring in a demolition contractor to level the facility to three feet below grade.

Mark Kessinger said the reactor will be dismantled "from the inside out," with the outer shell the last thing to be removed. John Blakeman asked if non-hazardous material would be moved off-site, and Bill Wessel said "yes," except for some material that will be used as fill, noting that everything on-site will have a three foot cover."

Susan asked the audience for additional questions and comments, but there were none. Then, the date for the next meeting was established: Tuesday, May 16th, 7 PM-9 PM. The meeting will be held at Firelands College, in a room to be announced. She then asked the Workgroup for possible meeting topics. Mark Bohne suggested videos on radioactive materials handling. Tim said that he would eventually secure one from the Georgia Tech project. Jan Bohne mentioned the idea of putting the concept of radiation into terms that related to the decommissioning project, as compared with the doses received by patients undergoing cancer treatment and/or CAT Scans, MRI's and chest X-Rays. Susan asked that Robert Speers and Bob Hysong check into the possibility of a presentation, noting that this data is also available in a decommissioning fact sheet.

Ralph Roshong asked about the possibility of giving people a brief drive around Plum Brook Station to better illustrate the site to be decommissioned. He felt many people may be unaware of the decommissioning project, stating that "there's only two of us (Cambridge Circle residents)…who know what we're talking about." Susan noted that there were nearly 5,000 people who attended the Plum Brook Station Open House last October and that the event featured a drive-by of the reactor facility. Since the site is being decommissioned, going inside the facility is not possible at this time, but that NASA would continue to look at ways to communicate with the community.

Tim said there is some footage from the Open House video that could be useful and Mark Bohne observed that members of Restoration Advisory Board for the former Ordnance Facility (located at what is now Plum Brook Station) visit Plum Brook Station twice a year. Susan said there would probably be another Open House within two years, adding that one possibility being considered is to take Workgroup members on site tours during the decommissioning.

Ethel felt that very few members of the African American community knew anything about the decommissioning project, observing that her own initial knowledge came from a tour organized by Plum Brook Station General Manager Bob Kozar. Susan agreed that more outreach to the community was needed. Ethel said the community's churches would provide a good avenue for communication. Bill offered to speak on decommissioning at a church dinner (Ethel's church, Saint Stephen's AME, in Sandusky, is headed by the Reverend Thomas Darden, who is also a workgroup member) and NASA will follow up on more outreach to the African American community.

John Blakeman suggested that NASA put together a timeline on decommissioning. Susan said that NASA will provide a progress update at each Workgroup meeting.

The meeting adjourned at 8:25 PM, with Workgroup members and other attendees visiting the decommissioning displays.